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1 ABSTRACT

2 A means and method are disclosed whereby ions from an ion
3 source can be selected and transferred to a time-of-flight mass
4 analyzer via an arrangement of multipoles in such a way that
5 fragmented ions may be generated by collision-induced
6 dissociation or surface-induced dissociation. First, ions from
7 the source are collisionally cooled by a first multipole.
8 Second, the m/z range of the ions is then selected by a second
9 multipole (preferably a quadrupole). Third, the selected ions
10 are allowed to collide with a "collision surface" capable of
11 producing fragment ions. Fourth, these fragment ions are
12 collisionally cooled in a third multipole and delivered into a
13 TOF mass analyzer for subsequent analysis of the fragmented ions.
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